

## **REMARKS**

This application has been reviewed in light of the Office Action dated December 12, 2007. Claims 1-46 are pending in the application. No new matter has been added. The Examiner's reconsideration of the rejection in view of the amendment and the following remarks is respectfully requested.

By the Office Action, claims 1-46 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 7,149,797 to Weller et al. (hereinafter Weller).

Weller is directed to content delivery network (CDN) for a service provider. The network of Weller is constructed based upon the inclusion of equipment and services of other service providers. Weller "leverages" a distributed infrastructure of various third party network service providers. (col. 5, line 56 – col. 6, line 2). As such the network services provided for content delivery must be constructed and planned in advance so that service agreements can be negotiated between the third party service providers. The network constructed by Weller is separated into regions. The regions are based on servers having a same backbone switch (e.g., a LAN, i.e., connected to a same source) (see col. 4, lines 5-8). A region may be based on DNS addresses of customers requesting service (col. 4, lines 35-39).

The system handles additional load by over-provisioning the system with additional resources in advance. (Col. 8, lines 26-31). In addition, set rules are put in place for when customers may be shifted to other regions (col. 8, lines 22 - col. 9 line 17). Maprules are predetermined on how overflow may be handled. Weller employs user redistribution to handle overflow. Weller does not disclose or suggest that a plurality of proxy servers be hierarchically organized. Weller does not disclose or suggest that dynamic reconfiguration of the network.

Claim 1 of the present invention, includes, *inter alia*, a method of distributing streaming data in a wide area network having an overlay network of proxy servers comprising activating proxy servers to form a hierarchical structure comprising multiple tiers of proxy servers with respect to a data stream to distribute said data stream from a data source to a plurality of users, said proxy servers being activated in said tiers based upon the users and to provide a predetermined network operating condition; and dynamically reconfiguring said hierarchical structure of proxy servers as users change to maintain said predetermined network operating condition. It is respectfully submitted that off-loading overflow traffic to different regions in a pre-planned network is not the same as dynamically reconfiguring a hierarchical structure of proxy servers. While Weller may redistribute traffic, there is no disclosure or suggestion of reconfiguring a hierarchy of proxy servers.

Claims 1, 16 and 21 all recite, *inter alia*, the step of dynamically reconfiguring said hierarchical structure of proxy servers. The dynamic reconfiguration of the hierarchy permits a number of users to not only receive service but receive the same service as all other users. Further, the hierarchical network is reconfigured to provide service to any and all users. Weller provides a static network broken into regions where designated servers are provided to service predetermined regions. When overflow is experienced, the system of Weller redirects the traffic to other regions, and does not in any way reconfigure proxy servers to dynamically accommodate changing conditions. Weller performs redistribution by mapping and load balancing, and not by dynamic reconfiguration of hierarchical structures.

In fact, Weller states that “The present invention may be implemented in any content delivery network”. This is because the Weller invention is directed to how to administer a content delivery system using resources from different service providers, and does not disclose or suggest a dynamic reconfigurable network that can be changed to accommodate system conditions. Further, Weller does not reconfigure his system dynamically and even states at col. 9, lines 51-58, that “The particular algorithms and techniques for performing that actual region assignment are not part of the present invention. As the CDNSP deploys more NCDNs, it should ensure that the set of candidate regions for a specific client name server over all maprules does not grow too large, because otherwise too much network traffic testing may occur and/or become unwieldy.” Hence, the traffic must be considered in advance and that a particular server is limited in its candidate regions to protect against provisioning problems. Other limitations in Weller, e.g., limits to the rate, also support this reading. (see e.g., col. 10, lines 52-59).

Since Weller fails to disclose or suggest at least: a hierarchical structure comprising multiple tiers of proxy servers; and dynamically reconfiguring said hierarchical structure of proxy servers, claims 1, 16 and 26 are believed to be in condition for allowance over Weller. Other reasons exist for allowing the present claims. For example, claim 16 includes multiple hierarchies which are not disclosed in Weller.

Further, the dependent claims from claim 1, 16 and 26 are also believed to be in condition for allowance as well. For example, with regard to claim 23, the Examiner states that the limitation of the double exponential prediction method is well known in the art in view of U.S. Patent No 5,168,136 (Col. 5, lines 7-17). The cited patent 5,168,136 (Col. 5, lines

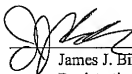
7-17) does not refer to double-exponential prediction. Furthermore, 5,168,136 is about predicting the behavior of an elevator (which has significantly different characteristics than streaming content delivery networks). Reconsideration of the rejection is earnestly solicited for at least the stated reasons.

A Petition for a two month extension of time is enclosed. The PTO is authorized to charge Applicant's deposit account no. 14-0627 the fee of \$460 for the two month extension. It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to Deposit Account No. 14-0627.

In view of the foregoing amendments and remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,

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